

METHOD AND APPARATUS TO COMPENSATE QUANTIZATION ERROR OF CHANNEL QUALITY REPORT

ABSTRACT OF THE DISCLOSURE

In one aspect this invention provides a wireless communication system (5) that includes a mobile station (20) having circuitry (22, 24, 26) and a computer program controlling operation of the circuitry to make a measurement from a forward channel to obtain a measurement result value, to quantize the measurement result value in accordance with an N level quantization to obtain a code, and to report the code on a reverse channel. The wireless communication system further includes a base station (10) having circuitry (12, 14, 16) and a computer program controlling operation of the circuitry to convert the code to a number, to compare the number to a threshold and, if the comparison indicates that the number may not accurately reflect the measurement result value, to adjust the number using an adjustment factor. In these embodiments the adjustment factor, also referred to as *Delta*, may be a constant, or it may be a variable. In one embodiment *Delta* is computed by the mobile station, and is reported to the base station.